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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Hisae Shibuya

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TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

EXAMINER

TRAN, TRANG U

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/824,991	Applicant(s) SHIBUYA ET AL.	
	Examiner Trang U. Tran	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-9, 14-22, 29 and 30 is/are allowed.
- 6) ☒ Claim(s) 11 and 24 is/are rejected.
- 7) ☒ Claim(s) 10, 12, 13, 23 and 25-28 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed Nov. 21, 2005 have been fully considered but they are not persuasive.

In re pages 12-13, applicant argues, with respect to claim 10, that Nishikawa does not disclose "obtaining a first image by imaging said displayed measurement pattern with an imaging element under a first light intake condition of said imaging element; obtaining a second image by imaging said displayed measurement pattern with said imaging element under a second light intake condition of said imaging element" because Nishikawa discloses obtaining a plurality of images of a test pattern that is displayed on a screen by changing raster size and does not describe using different light intake conditions to obtain different images of a displayed pattern.

In response, the examiner respectfully disagrees. Nishikawa discloses in col. 5, lines 33-41 that "FIG. 1A shows a state where a plurality of phosphors $F(j)$ ($j=1, 2, \dots$) are made luminous by projecting a plurality of electron beams $B_m(i)$ ($i=1, 2, 3$) on a display surface of the CRT. FIG. 1B shows luminance distributions of a plurality of phosphors $F9i, k$) made luminous by the respective electron beam $B_m(i)$. FIG. 1C shows the calculated profile of the electron beams by combining the luminance distributions obtained for the respective electron beams $B_m(1)$ to $B_m(3)$ ". It is noted that the claimed "obtaining a first image by imaging said displayed measurement pattern with an imaging element under a first light intake condition of said image element" is met by the electron beam $B(1)$ of Nishikawa and the claimed "obtaining a second image

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by imaging said displayed measurement pattern with said imaging element under a second light intake condition of said imaging element" is met by electron beam Bm(2) of Nishikawa.

In re page 13, applicant argues, with respect to claim 23, that Nishikawa does not disclose the claimed "imaging means for obtaining a first image and a second image by imaging said displayed measurement pattern under a first light intake condition and a second light intake condition, the first image being obtained with an imaging element under said first light intake condition of said imaging element, the second image being obtained with said imaging element under said second light intake condition of said imaging element...".

In response, the examiner respectfully disagrees. As discussed above with respect to claim 10, the claimed "imaging means for obtaining a first image and a second image by imaging said displayed measurement pattern under a first light intake condition and a second light intake condition, the first image being obtained with an imaging element under said first light intake condition of said imaging element, the second image being obtained with said imaging element under said second light intake condition of said imaging element..." is met by the calculating profile of the electron beams by combining the luminance distributions obtained for the respective electron beams Bm(1) to Bm(3) of Nishikawa.

In re page 13, applicant argues, with respect to claim 27, that Nishikawa does not disclose the claimed "obtaining a first image by imaging said displayed measurement pattern with an imaging element under a first light intake condition of said imaging

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element, obtaining a second image by imaging said displayed measurement pattern with said imaging element under a second light intake condition of said imaging element...".

In response, the examiner respectfully disagrees. As discussed above with respect to claim 10, Nishikawa discloses all the claimed limitations including the claimed "obtaining a first image by imaging said displayed measurement pattern with an imaging element under a first light intake condition of said imaging element, obtaining a second image by imaging said displayed measurement pattern with said imaging element under a second light intake condition of said imaging element...".

In re page 13, applicant states that dependent claims 12 and 25 are allowable at least for the reasons of their independent claims 10 and 23.

In response, the examiner respectfully disagrees. As discussed above with respect to claims 10 and 23, Nishikawa discloses all the claimed limitations of claims 10 and 23.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 10, 13, 23 and 26-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Nishikawa (US Patent No. 6,333,627 B1) as set forth in the last Office action.

In considering claim 10, Nishikawa discloses all the claimed subject matter, note 1) the claimed displaying a measurement pattern on a display surface of a color picture tube is met by the signal generator 4 which generates the specified pattern signal (dot pattern) for the measurement which is displayed on the color CRT 6 (Fig. 2, col. 8, lines 41-51), 2) the claimed obtaining a first image, by imaging said displayed measurement pattern with an imaging element under a first light intake condition of said imaging element is met by the frame image pick up by the CCD camera 31 (Fig. 8, col. 9, line 4 to col. 10, line 44), 3) the claimed obtaining a second image by imaging said displayed measurement pattern with said imaging element under a second light intake condition of said imaging element is met by the frame image pick up by the CCD camera 31 (Fig. 8, col. 9, line 4 to col. 10, line 44), 4) the claimed obtaining a third image having a wider dynamic range than images obtained through imaging with said imaging element by combining said first image and said second image is met by the pixel data which having maximum light reception level is stored in RAM 24 by replaced (Fig. 8, col. 10, line 45 to col. 11, line 24), 5) the claimed measuring a discrete fluophor emission intensity distribution for said measurement pattern is met by the calculation of Fig. 9, col. 11, lines 25-54, 6) the claimed obtaining an electron beam intensity distribution using said measured discrete fluophor emission intensity distribution and said calculated data for said plurality of basic patterns is met by the measurement controller 5 (Fig. 10, col. 11,

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line 55 to col. 14, line 20), and 7) the claimed outputting information relating to said determined electron beam intensity distribution is met by the output correction data (Fig. 10, col. 11, line 55 to col. 14, line 20).

In considering claim 13, the claimed wherein said third image with said wide dynamic range provides noise separation in a range of about 1 % to about 100% of a maximum luminance of said image is met by the pixel data which having maximum light reception level is stored in RAM 24 by replaced (Fig. 8, col. 10, line 45 to col. 11, line 24).

Claim 23 is rejected for the same reason as discussed in claim 10.

Claim 26 is rejected for the same reason as discussed in claim 13.

Claim 27 is rejected for the same reason as discussed in claim 10 above, and further the claimed assembling a plurality of electrodes using an electron gun assembly process, using an electron gun sealing process, placing an electron gun assembled in said electron gun assembly process in a bulb, forming a vacuum, and sealing said bulb is met by the electron gun mount portion 613 (Fig. 2, col. 6, lines 49-67), and the claimed assembling a deflector yoke onto said bulb and performing inspection and adjustment of image quality using an image quality inspection/adjustment process, said bulb assembled with said deflector yoke being sent to a next process when said image quality inspection/adjustment process is passed successfully is met by the deflection yoke 615 (Fig. 2, col. 6, line 49 to col. 7, line 43).

In considering claim 28, the claimed wherein if an irregularity is detected in quantitative evaluation of emission distribution in said image quality

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inspection/adjustment process, information relating to said irregularity is passed on to at least one of the following: said electron gun assembly process, said electron gun sealing process, and said image quality inspection/adjustment process is met by the deflection yoke 615 (Fig. 2, col. 6, line 49 to col. 7, line 43).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 12 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishikawa (US Patent No. 6,333,627 B1) as set forth in the last Office action.

In considering claim 12, Nishikawa discloses all the limitations of the instant invention as discussed in claim 10 above, except for providing the claimed wherein said second light intake condition is set so that, in said second image imaged under said second light intake conditions, images associated with areas having a brightness of no more than about 1% of a maximum luminance from said first image are distinguishable from noise. Nishikawa also discloses the CCD camera 3 performs an exposure control in conformity with a desired shutter speed by controlling the electric charge storing time of the image pickup device 31 (Fig. 2, col. 6, lines 33-44). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the second image associated with areas having a brightness of no more than about 1% of a

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maximum luminance from said first image into Nishikawa's system since it merely selecting available component.

Claim 25 is rejected for the same reason as discussed in claim 12.

Allowable Subject Matter

6. Claims 1-9, 14-22 and 29-30 are allowed.

7. Claims 11 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The independent claims 1, 7, 14 and 20 directed to a method for evaluating a color picture tube. They identify the uniquely distinct features: "displaying on a display surface of a color picture tube a measurement pattern including a plurality of first patterns arranged at different positions relative to fluophor dots of said color picture tube and a plurality of second patterns near said first patterns and sufficiently large relative to said fluophor dots; obtaining a second image using said imaging element to image while controlling light intake to allow brightness components of no more than about 1% of maximum luminance from said first image to be separated from noise and imaged; creating a third image by combining said first image and said second image while adjusting scales according to a light intake ratio; calculating, from said third image, display center positions of said plurality of first patterns using said second pattern positions". The closest prior art, Nishikawa (US Patent No. 6,333,627 B1), either singularly or in combination, fail to anticipate or render the above underlined limitations obvious.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trang U. Tran whose telephone number is (571) 272-7358. The examiner can normally be reached on 9:00 AM - 6:30 PM, Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lin Ye can be reached on (571) 272-7372. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

March 16, 2009

/Trang U. Tran/
Primary Examiner, Art Unit 2622